

Amendments to the Claims:

This listing of claims replaces all prior versions and listings of claims in the application:

Listing of Claims:

1-22. (Cancelled)

23. (Currently Amended) A process of treating a metallic bone implant having no calcium-phosphate-containing coating, consisting essentially of treating the metallic bone implant with an aqueous solution, other than hydrofluoric acid, containing fluoride ions in a concentration of greater than 0% and up to 3%,

said aqueous solution being free from sodium and sodium ions, ~~and being a solution of a fluoride selected from the group consisting of lithium fluoride, cesium fluoride, potassium fluoride, ammonium fluoride, stannous fluoride, or any combination thereof.~~

24-26. (Cancelled)

27. (Currently Amended) A process as claimed in claim 23 wherein said metallic bone implant has a surface constituted by a metallic oxide ~~of treating a metallic bone implant, said metallic bone implant having no calcium-phosphate-containing coating and having a surface layer constituted by a metallic oxide, consisting essentially of treating the metallic bone implant with an aqueous solution containing fluoride ions in a concentration of greater than 0% and up to 3%,~~

said aqueous solution being free from sodium and sodium ions, ~~and being a solution of a fluoride selected from the group consisting of lithium fluoride, cesium fluoride, potassium fluoride, ammonium fluoride, stannous fluoride, or any combination thereof.~~

28-33. (Cancelled)

34. (Previously Presented) A process as claimed in claim 27, wherein said metallic bone implant is constituted by titanium or a titanium alloy, and said metallic oxide is a titanium oxide.

35-43. (Cancelled)

44. (Currently Amended) A process as claimed in claim 23, of treating a metallic bone implant, consisting essentially of treating the metallic bone implant with an aqueous solution containing fluoride ions in a concentration of greater than 0% and up to 3%, said aqueous solution being free from sodium and sodium ions,

said aqueous solution being free from sodium and sodium ions, and being a solution of a fluoride selected from the group consisting of lithium fluoride, cesium fluoride, potassium fluoride, ammonium fluoride, stannous fluoride, or any combination thereof; and

comprising a further step, performed after said treatment with the aqueous solution containing fluoride ions, of treating the implant with a solution comprising calcium ions to further improve the biocompatibility of the implant.

45-82. (Cancelled)

83. (Currently Amended) A process as claimed in claim 44 wherein treating with the solution comprising calcium ions, comprises:

precipitating, onto a surface of the implant, the calcium ions from the solution comprising calcium ions.

84. (Previously Presented) A process as claimed in claim 44 wherein the metallic bone implant has no calcium-phosphate-containing coating.

85. (New) A process as claimed in claim 44, wherein the solution comprising calcium ions is an aqueous solution of a calcium salt selected from the group consisting of calcium fluoride, calcium phosphate, calcium acetate, and calcium chloride.

86. (New) A process as claimed in claim 85, wherein the solution comprising calcium ions is an aqueous solution of calcium fluoride.

87. (New) A process as claimed in claim 23, wherein the concentration of fluoride ions is from 0.01 to 0.5%.

88. (New) A process as claimed in claim 23, wherein the concentration of fluoride ions is from 0.1 to 0.5%.

89. (New) A process as claimed in claim 23, wherein the concentration of fluoride ions is from 0.2 to 0.5%.

90. (New) A process as claimed in claim 23, wherein the concentration of fluoride ions is approximately 0.2%.

91. (New) A process as claimed in claim 23, wherein said aqueous solution is a solution of a fluoride selected from a group consisting of lithium fluoride, cesium fluoride, potassium fluoride, ammonium fluoride, stannous fluoride, or any combination thereof.

92. (New) A process as claimed in claim 23, wherein treating the metallic bone implant with the aqueous solution comprises retaining a portion of the fluoride ions on a surface of the metallic bone implant, wherein the portion is sufficient to increase a rate of attachment of the metallic bone implant to bone tissue.